



Tiverton Size Adjustment Curve

What is the purpose of the size adjustment curve?

- Take two similar houses, one is a 1,000 square foot Ranch and the other is a 2,000 square foot Ranch
- If we assume that the 1,000 square foot ranch is worth \$100,000 is it safe to assume that the 2,000 square foot Ranch is \$200,000?
- No, under the Principle of Decreasing Returns, the more you have of something the less it is worth on a declining scale/curve.
- This is the purpose of the size adjustment curve, while a 1,000 square foot Ranch may be worth \$100 per square foot, a 2,000 square foot Ranch may be worth only \$75 per square foot.
- Using this method, the 2,000 square foot Ranch will still come in at a higher value than the 1,000 square foot Ranch, but it will not be a linear correlation



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How is the size adjustment curve calculated?

- First, a standard size of the class of properties is identified. This becomes the standard set point for the curve; meaning that any property smaller than the standard has an increased price per square foot and any property larger has a decreased price per square foot.
- Once a standard size is identified, sales are utilized to tune the curve. In our earlier example we would use sales to decide if that 2,000 square foot Ranch should be at \$60 or \$80 per square foot.
- This curve is then applied to the population and is verified to ensure it is producing numbers that are consistent with the model.



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What areas are included in the size adjustment curve?

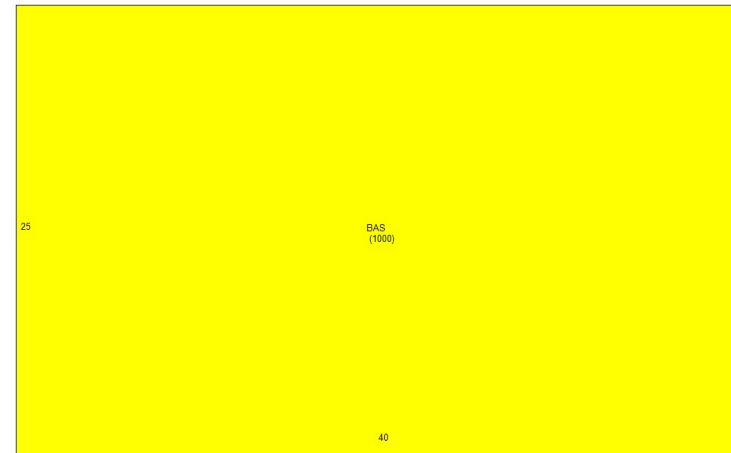
- The actual size adjustment modifier is applied to all sub areas of a property, but not all areas should be fed back into the curve.
- As an example, take a 1,000 square foot Ranch and a second 1,000 square foot Ranch but this one has a 200 square foot wood deck
- The question becomes, should the addition of a 200 square foot wood deck reduce the price per square foot of the base structure
- The answer to that question is no as we will see on the next couple of slides



Tiverton Size Adjustment Curve

Without Wood Deck

- The Ranch at the right is 1,000 square feet as our example
- Using actual numbers for Tiverton, the Base Rate for Ranches is \$147.00, the standard size of residential houses is 1,776 square feet which calculates the Size Adjustment curve at 1.19400.
- This means that this Ranch is priced at \$175.52 per square foot or \$175,520 (ignoring kitchens, bathrooms, etc.)

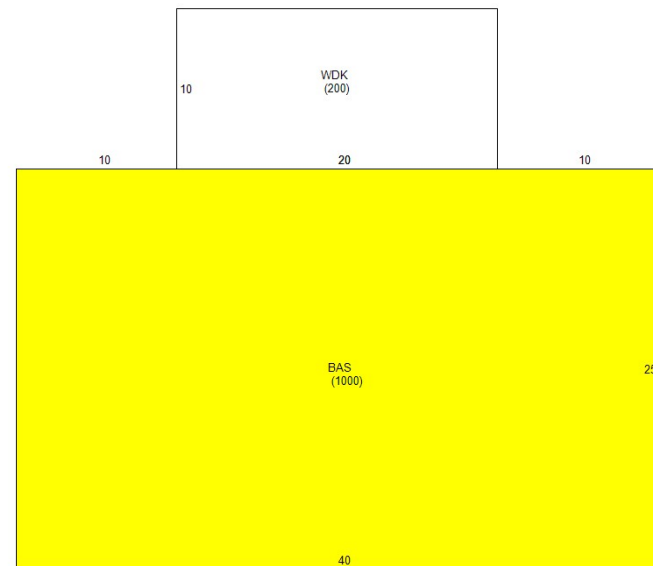




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With Wood Deck and Incorrect Size Adjustment Curve

- Now let's add a 200 square foot wood deck to this house.
- It is intuitive to think that since we added something to the house, the value should increase.
- However, in this example, the size adjustment is mis-configured and the wood deck square footage is included in the living space curve.
- As before, the Base Rate for Ranches is \$147.00 and the standard size of residential houses is 1,776 square feet but because of the wood deck this calculates the Size Adjustment curve at 1.12000.
- This means that this Ranch is priced at \$164.64 per square foot or \$164,640 (ignoring kitchens, bathrooms, etc.) + \$1,052 for the wood deck.
- As you can see, by adding a wood deck the property has decreased in value by \$9,828 by adding a wood deck.

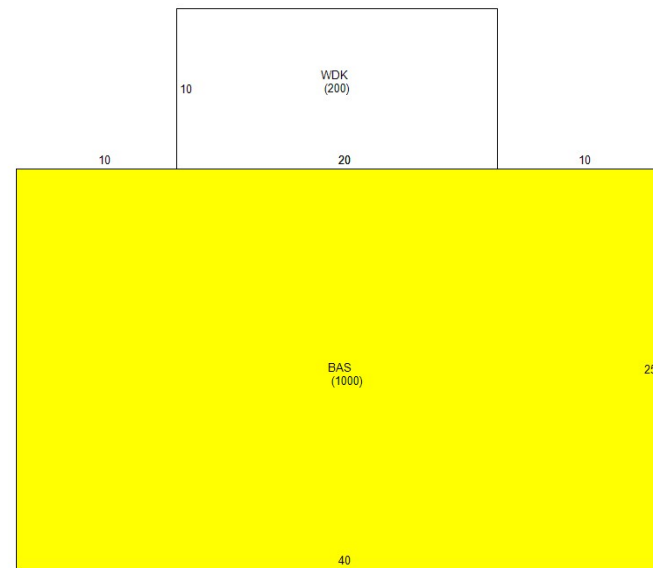




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With Wood Deck and Corrected Size Adjustment Curve

- If we fix the size adjustment curve to ignore areas such as the deck, we will arrive at a more accurate value.
- Using actual numbers for Tiverton, the Base Rate for Ranches is \$147.00 and the standard size of residential houses is 1,776 square feet which again calculates the Size Adjustment curve back at 1.19400.
- This means that this Ranch is priced at \$175.52 per square foot or \$175,520 (ignoring kitchens, bathrooms, etc.) + \$1,052 for the wood deck.
- As you can see, by adding a wood deck with a correct curve the property has increased in value by \$1,052 by adding a wood deck, as we would have expected.





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Conclusion

- This is the situation we found ourselves in during the hearings.
- Due to changes made correcting hearing properties, it came to light that the sub areas such as decks, porches, garages, etc. were being included in the size adjustment curve.
- This led to properties going up in value when incorrect features such as decks were removed.
- As part of the hearing process and finalizing of values, we reconfigured the system to handle the proper sub areas in the curve.
- As you can see in the example shown above, that property would have an increase of \$10,880 due to this fix.
- Note, however, that this brings their property in line with what we expect their value to be, and now they are only \$1,052 higher than an identical Ranch without a wood deck.
- We apologize for any confusion and frustration that this caused.